Contents Volume 70, 1988

Special Issue "European Association for Geochemistry International Congress of Geochemistry and Cosmochemistry" held in Paris, France, on August 29-September 2, 1988

"Avant Propos", by Y. Bottinga (President EAG)	vi
O. Open Sessions	
1 Nuclearymthesis and Isotone Anomalies in Metaprites	
J.L. Birck, G.W. Lugmair and T. Lee	28
0.0 1	
P. Pellas and J.A. Wood	29
3. Rare Gas Geochemistry and the Solid Earth-Atmosphere Relationship Th. Staudacher, M.D. Kurz and R.K. O'Nions	35
4. Oceanic Basalts and Chemical Studies of the Earth Mantle	TETRACTOR BORRESTON
4. Oceanic Basalts and Chemical Studies of the Earth Mantle B. Dupré, A. Zindler and A.J. Erlank	4!
5. Ultra-high Pressure Experiments and the Nature of the Lower Mantle and Core J.P. Poirier, R.C. Liebermann and S. Akimoto	50
6. Development of the Continental Crust through Geological Time	
Ph Videl R Nelson and Tu Kuan Che	65
6. Development of the Continental Crust through Geological Time Ph. Vidal, B. Nelson and Tu Kuan Che	
7. Kinetic Geochemistry J. Schott and A.C. Lasaga 8. Liquid Silicates and Physical Chemistry of Magnes	75
8. Liquid Silicates and Physical Chemistry of Magmas	
8. Liquid Silicates and Physical Chemistry of Magmas P. Richet and D.G. Fraser	8F
0.0 4.0 1 : 44 1 : 01 : 4	
G. Lambert and F.S. Rowland	93
10. Geochemical Variability of the Ocean on a 10-10 yr. Time Scale: Causes and Consequences L.D. Labeyrie and E.A. Boyle	107
11. Biogeochemistry of Terrestrial and Marine Ecosystems	
D. Nahon and F. Morel	113
12 Interactions between Extraterrestrial and Torrestrial Phanamana (Cosmic Rays K_T Roundary of	c)
12. Interactions between Extraterrestrial and Terrestrial Phenomena (Cosmic Rays, K-T Boundary, et F. Robert and K.K. Turekian	117
13. Uranium Series Disequilibria and Short-Lived Phenomena	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
M. Bernat and J.B. Gill	193
14 Total Transcore and One Promote Country	
J.R. Lancelot, B. Doe and D. Rickard	131
15. Early Developments of the Earth and Archean Geochemistry	
B.M. Jahn, S. Moorbath and K. Gopalan	190
16. Quantitative Modelling of Trace Elements C. Dupuy and A.W. Hofmann	151
17. Experimental Petrology Applied to Fluid Systems and Fluid-Rock Interactions	
A. Weisbrod and M. Lagache	157
A. Weisbrod and M. Lagache	107
	167
L. Merlivat, M. Magaritz and W. Dansgaard	
20. New Analytical Techniques in Geochemistry	171
H. Bougault and N. Shimizu	111
22. Paleothermometry (High and Low Temperatures)	101
M. Javoy and J.R. O'Neil	181
23. Exploration Geochemistry of Uranium	107
B. Poty	187
24. Chemical Balance of the Oceans J.F. Minster and W.S. Broecker	100
J.F. Minster and W.S. Broecker	193

Addendum	201
List of speakers	205
Guide for Authors	
Research Papers	
A coherent crust-mantle model for the uranium-thorium-lead isotopic system	
C.J. Allègre, E. Lewin and B. Dupré (Paris, France)	211
Major- and minor-metal composition of three distinct solid material fractions associated with Juan de Fuca hydrothermal fluids (northeast Pacific), and calculation of dilution fractions of fluid samples	
T.K. Hinkley, J.L. Seeley and M. Tatsumoto (Denver, Colo., U.S.A.)	235
Some remarks on the stability of sphene in diagenetic environments	
A.A. AlDahan and S. Morad (Uppsala, Sweden)	249
Carbon and oxygen isotope investigations in carbonatites and related rocks from the Kaiserstuhl, Germany HW. Hubberten (Karlsruhe, Federal Republic of Germany), K. Katz-Lehnert and J. Keller (Freiburg, Federal	
Republic of Germany)	257
Elemental composition of Godavari sediments (central and southern Indian subcontinent)	
G. Biksham and V. Subramanian (New Delhi, India)	275
Biogenic hydrocarbons in fluid inclusions from the Aberfoyle tin-tungsten deposit, Tasmania, Australia	
C.F. Hoffmann, R.W. Henley, N.C. Higgins, M. Solomon and R.E. Summons (Canberra, A.C.T., Australia)	287
CO ₂ production in tar sand reservoirs under in situ steam temperatures: Reactive calcite dissolution	
W.D. Gunter and G.W. Bird (Edmonton, Alta., Canada)	301
Distribution of major, minor and trace elements in Hat Creek Deposit No. 2, British Columbia, Canada	
F. Goodarzi (Calgary, Alta., Canada) and E. van der Flier-Keller (Victoria, B.C., Canada)	313
Geochemical signature of provenance in sand-size material in soils and stream sediments near the Tobacco Root batholith, Montana, U.S.A.	
R.L. Cullers (Manhattan, Kans., U.S.A.), A. Basu and L.J. Suttner (Bloomington, Ind., U.S.A.)	335
Mg-NH ₄ exchange on humic acid: A radiotracer technique for conditional exchange constants in a seawater medium	
Marta T. von Breymann, C.A. Ungerer and E. Suess (Corvallis, Oreg., U.S.A.)	349
Magnesium in the marine sedimentary environment: Mg−NH₄ ion exchange	0 .0
Marta T. von Breymann and E. Suess (Corvallis, Oreg., U.S.A.)	359
Contents Volume 70, 1988	373